

CLAIMS:

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1. Method of transmitting a plurality of data packets from a transmitting station to a receiving station, the method comprising the step of: transmitting a first number of first data packets of a plurality of first data packets in a first container of a plurality of second containers from the transmitting station to the receiving station;
10 wherein the first data packets are data packets of a first connection; and wherein the first number is one of smaller and equal to a maximum number.
2. The method of claim 1, wherein a preset number of first data packets is transmitted from the transmitting station to the receiving station in a second number of
15 second containers; wherein the second number is one of bigger and equal to a minimum number.
3. The method of claim 1, wherein a plurality of second data packets is transmitted from the transmitting station to the receiving station; wherein each data
20 packet of the plurality of first and second data packets is provided with connection information, which indicates whether the corresponding data packet is a first data packet or a second data packet.
4. The method of claim 3, wherein each data packet of the plurality of first
25 and second data packets is an encoded data packet comprising connection information; and wherein the consecutive data packet number of a third data packet of the plurality of first and second data packets is applied to encode the third data packet, resulting in an encoded third data packet comprising connection information.
- 30 5. The method of claim 1, wherein the first container is labelled with a container sequence number; wherein the first container has a first container size;

wherein the first container size is influenced by a number of data packets inside the first container; and wherein an error protection of the first container is influenced by the number of data packets inside the first container.

5 6. The method of claim 1, wherein the transmitting station is configured by a network unit; wherein the network unit determines the maximum number based on channel conditions; wherein the network unit transmits a first signal to the transmitting station; and wherein the first signal comprises information about the maximum number.

10 7. The method of claim 3, wherein the transmitting station reads the connection information of a fourth data packet of the plurality of first and second data packets; wherein the transmitting station decides whether the fourth data packet is a first data packet depending on the connection information; and wherein, if the fourth data packet is a first data packet and if the resulting first number is one of smaller and equal
15 to the maximum number, the transmitting station adds the first data packet to the first container.

8. The method of claim 2, wherein the network unit determines the maximum number and the minimum number based on channel conditions; wherein the
20 network unit transmits a second signal to the transmitting station; wherein the second signal comprises information about the maximum number and the minimum number.

9. The method of claim 1, wherein the method is applied for data transmission over the High Speed Downlink Shared Channel in UMTS.

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10. Communication system for transmitting a plurality of data packets from a transmitting station to a receiving station, wherein the communication system is adapted for performing a transmission of a first number of first data packets of a plurality of first data packets in a first container of a plurality of second containers from the transmitting
30 station to the receiving station; wherein the first data packets are data packets of a first

connection; and wherein the first number is one of smaller and equal to a maximum number.

11. Transmitted station for transmitting a plurality of data packets from the
5 transmitted station to a receiving station, wherein the transmitting station is adapted
for performing a transmission of a first number of first data packets of a plurality of first
data packets in a first container of a plurality of second containers from the transmitting
station to the receiving station; wherein the first data packets are data packets of a first
connection; and wherein the first number is one of smaller and equal to a maximum
10 number.

12. Software program product for performing a transmission of a plurality of
data packets from a transmitting station to a receiving station, wherein a first number of
first data packets of a plurality of first data packets in a first container of a plurality of
15 second containers is transmitted from the transmitting station to the receiving station;
wherein the first data packets are data packets of a first connection; and wherein the first
number is one of smaller and equal to a maximum number.